

COMPLETE LISTING OF CLAIMS:

Claims 1-34 (Canceled).

35. (Previously Presented) A semiconductor device comprising:
 - a semiconductor substrate; and
 - a dissimilar element-diffused metal layer formed on said semiconductor substrate, said metal layer comprising copper and a dissimilar element other than copper and having a generally uniform orientation at a surface thereof.
36. (Previously Presented) A semiconductor device comprising:
 - a semiconductor substrate; and
 - a dissimilar element-diffused metal layer formed on said semiconductor substrate, said metal layer comprising copper and a dissimilar element other than copper, constituted of grains of an average size not less than 1 μm .
37. (Original) The semiconductor device as set forth in Claim 35, wherein an average grain size of crystals of said dissimilar element-diffused metal layer is greater than an average thickness of said dissimilar element-diffused metal layer.
38. (Original) The semiconductor device as set forth in Claim 36, wherein an average grain size of crystals of said dissimilar element-diffused metal layer is greater than an average thickness of said dissimilar element-diffused metal layer.
39. (Original) The semiconductor device as set forth in Claim 35, wherein a surface of said dissimilar element-diffused metal layer has an orientation of (200).

40. (Original) The semiconductor device as set forth in Claim 36, wherein a surface of said dissimilar element-diffused metal layer has an orientation of (200).

41. (Previously Presented) The semiconductor device as set forth in Claim 35, wherein said dissimilar element-diffused metal layer comprises one of an interconnect, a plug and a pad.

42. (Previously Presented) The semiconductor device as set forth in Claim 36, wherein said dissimilar element-diffused metal layer comprises one of an interconnect, a plug and a pad.

43. (Original) The semiconductor device as set forth in Claim 35, wherein said dissimilar element-diffused metal layer is formed by plating.

44. (Original) The semiconductor device as set forth in Claim 36, wherein said dissimilar element-diffused metal layer is formed by plating.

45. (Previously Presented) A semiconductor device comprising:
a semiconductor substrate;
a first interconnect formed on said semiconductor substrate; and
a second interconnect comprising a metal that is a main constituent of said first interconnect, formed in an identical interconnect layer,
wherein said second interconnect is narrower than said first interconnect, and
wherein said first interconnect and said second interconnect have a different orientation at respective surfaces thereof.

46. (Previously Presented) The semiconductor device as set forth in Claim 45, wherein a width of said second interconnect is narrower than that of said first interconnect, and a surface of said first interconnect has a principal orientation of (200), and a surface of said second interconnect has

principal orientation of (111) and

wherein a width of said first interconnect is not less than 1 μm , and a width of said second interconnect is not more than 1 μm .

47. (Previously Presented) A semiconductor device comprising:

a semiconductor substrate;

a first interconnect formed on said semiconductor substrate; and

a second interconnect comprising a metal that is a main constituent of said first interconnect, formed in an identical interconnect layer,

wherein said second interconnect layer is narrower than said first interconnect,

wherein said first interconnect comprises a dissimilar element other than a main constituent of said first interconnect diffused throughout said first interconnect, and

wherein said second interconnect comprises a dissimilar element formed over an upper surface thereof.

48. (Previously Presented) A metal interconnect comprising a plated metal layer comprising:

a plurality of dissimilar elements,

wherein an average size of grains contained in said plated metal layer is not less than 1 μm .

49. (Previously Presented) A metal interconnect comprising a plated metal layer comprising:

a plurality of dissimilar elements,

wherein said plated metal layer has a single grain size.

50. (Original) The metal interconnect as set forth in Claim 48, having a width not less than 1 μm .

51. (Original) The metal interconnect as set forth in Claim 49, having a width not less than 1 μm .

52. (Previously Presented) The semiconductor device as set forth in claim 45, wherein said first interconnect comprises a dissimilar element other than a main constituent of said first interconnect diffused throughout said first interconnect.

53. (Previously Presented) The semiconductor device as set forth in claim 45, wherein said second interconnect comprises a dissimilar element formed over an upper surface thereof.

54. (Previously Presented) The semiconductor device as set forth above in claim 35, wherein said dissimilar element other than copper comprises at least one of Ag, W, Mg, Be, Zn, Pd, Cd, Au, Hg, Pt, Si, Zr, Ti and Sn.

55. (Previously Presented) The semiconductor device as set forth above in claim 35, wherein said dissimilar element other than copper comprises 5 atomic % of said dissimilar element-diffused metal layer.

56. (Previously Presented) The semiconductor device as set forth in claim 35, wherein said dissimilar element-diffused metal layer has a grain size on an order of $10^2 \mu\text{m}$.

57. (Previously Presented) The semiconductor device as set forth in claim 35, wherein said dissimilar element other than copper is substantially uniformly diffused throughout said dissimilar element-diffused metal layer.